

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for identifying at least one of a plurality of communication channels available for communication ~~with~~ between one of a plurality of devices and a server, the method comprising:

monitoring each of the plurality of communication channels between the plurality of devices and the server ~~for one or more link pulses for one of the devices; and~~
determining whether at least one of the plurality of communication channels is being used for the transmission of link pulses by the server, wherein the presence of link pulses on one of the communication channels indicates that that particular communication channel is not currently being used for data transmission by the server and is available; and
establishing a connection between the device and the server using one of the available communication channels determined to the device with the communication channel monitored ~~to have the link pulses.~~

2. (Original) The method as set forth in claim 1 wherein the monitoring further comprises monitoring one of the plurality of communication channels at a time for the one or more link pulses.

3. (Original) The method as set forth in claim 2 wherein the monitoring further comprises disabling the other of the plurality of communication channels while the one of the plurality of communication channels is monitored for the one or more link pulses.

4. (Original) The method as set forth in claim 2 wherein the monitoring one of the plurality of communication channels is conducted by two or more of the devices.

5. (Original) The method as set forth in claim 4 further comprising blocking the communication channel monitored to have the link pulses for the one device from the other devices.

6. (Original) The method as set forth in claim 1 further comprising providing an indication of which of the plurality of communication channels was the established communication channel for the device.

7. (Currently Amended) A computer readable medium having stored therein instructions for providing network access by identifying at least one of a plurality of communication channels available for communication between one of a plurality of devices and a server, which when executed by one or more processors, causes the processors to perform the steps of:

monitoring each of the plurality of communication channels between the plurality of devices and the server ~~for one or more link pulses for one of the devices~~; and determining whether at least one of the plurality of communication channels is being used for the transmission of link pulses by the server, wherein the presence of link pulses on one of the communication channels indicates that that particular communication channel is not currently being used for data transmission by the server and is available; and establishing a connection between the device and the server using one of the available communication channels determined ~~to the device with the communication channel monitored~~ to have the link pulses.

8. (Original) The computer readable medium as set forth in claim 7 wherein the monitoring further comprises monitoring one of the plurality of communication channels at a time for the one or more link pulses.

9. (Original) The computer readable medium as set forth in claim 8 wherein the monitoring further comprises disabling the other of the plurality of communication channels while the one of the plurality of communication channels is monitored for the one or more link pulses.

10. (Original) The computer readable medium as set forth in claim 8 wherein the monitoring one of the plurality of communication channels is conducted by two or more of the devices.

11. (Currently Amended) The computer readable medium as set forth in claim 10 further comprising blocking the other devices from accessing the communication channel monitored to have the link pulses for the ~~one device from the other devices~~.

12. (Original) The computer readable medium as set forth in claim 7 further comprising providing an indication of which of the plurality of communication channels was the established communication channel for the device.

13. (Currently Amended) A system for identifying at least one of a plurality of communication channels available for communication ~~with between~~ one of a plurality of devices and a server, the system comprising:

a monitoring system that monitors each of the plurality of communication channels between the plurality of devices and the server ~~for one or more link pulses for one of the devices~~ and determines whether at least one of the plurality of communication channels is being used for the transmission of link pulses by the server, wherein the presence of link pulses on one of the communication channels indicates that that particular communication channel is not currently being used for data transmission by the server and is available; and

a controller that establishes a connection between the device and the server using one of the available communication channels determined ~~to the device with the communication channel monitored~~ to have the link pulses.

14. (Original) The system as set forth in claim 13 wherein the monitoring system monitors one of the plurality of communication channels at a time for the one or more link pulses.

15. (Original) The system as set forth in claim 14 wherein the monitoring system disables the other of the plurality of communication channels while the one of the plurality of communication channels is monitored for the one or more link pulses.

16. (Original) The system as set forth in claim 13 wherein each of the devices has one of the monitoring systems.

17. (Original) The system as set forth in claim 16 further comprising a blocking system that blocks the communication channel monitored to have the link pulses for the one device from the other devices.

18. (Currently Amended) The system as set forth in claim 13 further comprising an indicator that indicates ~~of~~ which of the plurality of communication channels was the established communication channel for the device.

19. (Currently Amended) A method for coupling a plurality of devices together to a base unit, the method comprising:

providing a first plurality of substantially identical interface units, each of the interface units having a plurality of connectors; and

coupling at least one of connector n in the plurality of connectors in one of the first plurality of interface units to a connector n+1 in the plurality of connectors in the interface unit in the first plurality of interface units which is immediately preceding and coupled closer to the base unit, such that any of the devices in the plurality of devices is capable of establishing communication with the base unit via one or more available communication channels that extend from the base unit through the plurality of interface units,

wherein communication between one of the devices with the base unit via one of the communication channels renders that communication channel unavailable.

20. (Original) The method as set forth in claim 19 further comprising coupling a first connector in the plurality of connectors in each of the interface units to one of the devices.

21. (Original) The method as set forth in claim 19 further comprising coupling one or more of the plurality of connectors in one of the first plurality of interface units to the base unit.

22. (Original) The method as set forth in claim 19 further comprising:
providing a sub-base unit with one or more connectors; and
coupling at least one connector n in the one or more connectors in the sub-base unit to a connector n+1 in the plurality of connectors in the interface unit in the first plurality of interface units which is immediately preceding and coupled closer to the base unit.
23. (Original) The method as set forth in claim 19 further comprising:
providing a second plurality of substantially identical interface units, each of the second plurality of interface units having a plurality of connectors; and
coupling at least one of connector n in the plurality of connectors in one of the second plurality of interface units to a connector n+1 in the plurality of connectors in the interface unit in the second plurality of interface units which is immediately preceding and coupled closer to the sub-base unit.
24. (Original) The method as set forth in claim 23 wherein one or more of the plurality of connectors in one of the second plurality of interface units are coupled to the sub-base unit.
25. (Currently Amended) A bus system for coupling a plurality of devices together to a base unit, the bus system comprising:
a first plurality of substantially identical interface units, each of the first plurality of interface units having a plurality of connectors;
at least one of connector n in the plurality of connectors in one of the first plurality of interface units is coupled to a connector n+1 in the plurality of connectors in the interface unit in the first plurality of interface units which is immediately preceding and coupled closer to the base unit, such that any of the devices in the plurality of devices is capable of establishing communication with the base unit via one or more available communication channels that extend from the base unit through the plurality of interface units,
wherein communication between one of the devices with the base unit via one of the communication channels renders that communication channel unavailable.

26. (Original) The bus system as set forth in claim 25 wherein a first connector in the plurality of connectors in each of the interface units is coupled to one of the devices.
27. (Original) The bus system as set forth in claim 25 wherein one or more of the plurality of connectors in one of the first plurality of interface units are coupled to the base unit.
28. (Original) The bus system as set forth in claim 25 further comprising:
a sub-base unit with one or more connectors; and
at least one connector n in the one or more connectors in the sub-base unit is coupled to a connector $n+1$ in the plurality of connectors in the interface unit in the first plurality of interface units which is immediately preceding and coupled closer to the base unit.
29. (Original) The bus system as set forth in claim 25 further comprising:
a second plurality of substantially identical interface units, each of the second plurality of interface units having a plurality of connectors; and
at least one of connector n in the plurality of connectors in one of the second plurality of interface units is coupled to a connector $n+1$ in the plurality of connectors in the interface unit in the second plurality of interface units which is immediately preceding and coupled closer to the sub-base unit.
30. (Original) The bus system as set forth in claim 29 wherein one or more of the plurality of connectors in one of the second plurality of interface units are coupled to the sub-base unit.